7 pages Ex. 5 deliberative atty-client, WP, Ex. 7(a)

7 pages Ex. 5 deliberative atty-client, WP, Ex. 7(a)

7 pages Ex. 5 deliberative atty-client, WP, Ex. 7(a)

7 pages Ex. 5 deliberative atty-client, WP, Ex. 7(a)

7 pages Ex. 5 deliberative atty-client, WP, Ex. 7(a)

7 pages Ex. 5 deliberative atty-client, WP, Ex. 7(a)

7 pages Ex. 5 deliberative atty-client, WP, Ex. 7(a)

Attachment 1

Carbon Injection Daily Log
July 28, 2008 0900 hours to August 13, 2008 0525 hours

8 days
900 pounds

4.6875 pounds per hour

8.5 days
900 pounds

4.411765 pounds per hour

Carbon Injection Daily Log

COPY

Date	Time	Crew	Bag Wt.	Comments
7-28	09:00	D	900	New Bag
7-28	1720	B	872	
7-29	5	D	803	
7-29	1630	B	781	
7-30	05:00	A	709	
	17:15	C	670	
7-31	05:00	A	695	
	17:15	C	595	
8-1	5	D	549	
8-1	1715	B	468	
8-2	5	D	409	
8-3	17:15	B	180	
8-4	05:30	C	194	
〃	17:00	A	147	
8-5	05:30	C	59	
〃	09:30	C	1001	New bag
〃	17:00	A	942	
8-6	5	D	897	
8-7	5	D	805	
8-7	1720	B	700	
8-8	05:30	C	689	
8-8	16:15	A	633	
		A	651	

37-9962

Carbon Injection Daily Log

COPY

Date	Time	Crew	Bag Wt.	Comments
8/9/08	05:15	C	563	
〃	17:00	A	539	
8-10	05:30	C	464	
〃	17:00	A	370	
8-11	05:20	B	325	
8-11	17:05	D	295	
8-12	17	D	187	
8/13	05:25	C	142	

Attachment 2

Veolia's Mercury Spikes Solution Methods

Mercury Test Solution trace number 2101-59-17 (see Log 2101 page 59 lines 17-20)

Using a 2 liter graduated cylinder, added 10 liter of di water to a clean Nalgene Carboy.
Added 2.5 liters of Nitric Acid (trace metal grade) to the Carboy.
Tared a 100 ml beaker. And Into the tared beaker, weighed 26.200 grams of 98% mercury II nitrate hydrate.
Placed the 26.200g mercury into the carboy containing the nitric acid solution.
Filled a 2 liter graduated flask with DI water to the 2000 ml mark.
Rinsed the 100ml beaker 5-6 times with water and added the rinsate to the carboy.
Poured the remaining water into the carboy.
Added another 10.5 liter to the carboy for a final volume of 25 L
Mixed the solution several times though out the day.

Pulled 2 aliquot of 50 ml each to be tested for concentration at outside lab.

After the concentration of the solution was determined by the outside Lab, Jeff Mueller told me the volume to place in 50 ml cent tubes.
A 10 ml repipet dispenser was used to place the required number of mls into the centifuge tubes.

Chris

Hope This is What you wanted.

Trey

1101-1193

High Mercury Solution
Reagent # 2101-60-13
Vial prep 8/20/08 FHF / JS

MERCURY NITRATE SPIKE VIALS - Target Volume: 23 milliliters

Date 8-20-08

Personnel Ted Formby
Jim Smallwood

Shift 1st

Pump calibrated Y/S

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
1101	23	1126	23	1151	23	1176	23
1102	23	1127	23	1152	23	1177	23
1103	23	1128	23	1153	23	1178	23
1104	23	1129	23	1154	23	1179	23
1105	23	1130	23	1155	23	1180	23
1106	23	1131	23	1156	23	1181	23
1107	23	1132	23	1157	23	1182	23
1108	23	1133	23	1158	23	1183	23
1109	23	1134	23	1159	23	1184	23
1110	23	1135	23	1160	23	1185	23
1111	23	1136	23	1161	23	1186	23
1112	23	1137	23	1162	23	1187	23
1113	23	1138	23	1163	23	1188	23
1114	23	1139	23 ~~23~~ FHF 8/21/08	1164	23	1189	23
1115	23	1140	23	1165	23	1190	23
1116	23	1141	23	1166	23	1191	23
1117	23	1142	23	1167	23	1192	23
1118	23	1143	23	1168	23	1193	23
1119	23	1144	23	1169	23	1194	
1120	23	1145	23	1170	23	1195	
1121	23	1146	23	1171	23	1196	
1122	23	1147	23	1172	23	1197	
1123	23	1148	23	1173	23	1198	
1124	23	1149	23	1174	23	1199	
1125	23	1150	23	1175	23	1200	

Veolia Environmental Services
Trade Waste Incineration

BOOK NO. 2101

Metals- Standard Preparation

	Concentration(ug/ml) / Name	Conc / Starting Material	Trace Number	Amount	Final Volume(ml)	Prep Date	Exp. Date	Analyst
1	ICP ICV STD	5000 ug/ml As, Cd, Cr, Pb 2000 ug/ml Ba	2032-49-20	50 uL	100 ml	6-19-08	6-19-09	JS
2		Conc HNO_3	2032-44-29	6 mls				
3		Conc HCL	2032-32-6	2 mls				
4		DI H_2O	–	SQ				
5	0.1 ug/ml Hg	1,000 ug/ml Mercury	2032-M9-18	~~10 ml~~ 0.01 ml 100 ml KS 6/23/08	100 ml	6/23/08	6/23/09	KS
6		37% Conc HCL	2032-32-6	10 ml				
7		D. H_2O	—	SQ				
8	1.0 ug/ml Hg	1,000 ug/ml Hg	2032-49-18	0.1 ml	100 ml	6/23/08	6/23/09	KS
9		37% Conc HCl	2032-32-6	10 ml				
10		D. H_2O	—	SQ				
11	~~10~~ KS 6/23/08 ~~0~~ ug/ml Hg	1,000 ug/ml Hg	2032-49-18	~~0.01~~ 1.0 ml KS 6/23/08	100	6/23/08	6/23/09	KS
12		37% Conc NCL	2032-32-6	10 ml				
13		D. H_2O	—	SQ				
14	0.1 ug/ml Hg	10 ug/ml	2101-59-11 2032-	1.0 ml	100	6/23/08	6/23/09	KS
15		37% Conc Hcl	2032-32-6	10 ml				
16		D. H_2O	—	SQ				
17	~0.058 % Hg Sol	98% $H_2(WO_2)_2 \cdot H_2O$	2184-2-28	26.200 g	25 L	6/23/08	6-23-09	FHF
18	Conc To Be Confirmed	37% Conc N.tic	2032-45-1	2.5 L				
19	By Instrumental	D: H_2O	—	SQ				
20	Analysis							
21	~1.76% Hg Sol	98% $H_2(WO_2)_2 \cdot H_2O$	2184-2-29 2184-2-30	91.00 g	3 L	6/27/08	6/27/09	FHF
22		37% Conc N.tic	2032-32-13 FHF ~~2032-32-11~~	300 ml				
23		D: H_2O	—	SQ				
24	ICP ICV	Same As Lines 1 → 4			100 ml	7-10-08	7-14-08	JS
25	ICP ICV	Same As Lines 1 → 4			100	7-23-08	7-23-08	JS
26	ICP ICV	Same As Lines 1 → 4			100	7-30-08	7-30-08	JS
27	0.002 ug/ml Hg	0.20 ug/ml Hg	2101-58-29	1 ml	100 ml	7/30/07	9/13/07	KS
28		Conc HNO_3	2032-49-20	3 ml				
29		Conc HCL	2032-44-29	1 ml				
30		DI H_2O	—	SQ				

Date:

Veolia Environmental Services
Trade Waste Incineration

BOOK NO. 2101

Metals- Standard Preparation

	Concentration(ug/ml) / Name	Conc / Starting Material	Trace Number	Amount	Final Volume(ml)	Prep Date	Exp. Date	Analyst
1	0.02 ug/ml Hg	0.2 ug/ml Hg	2101-58-29	5 ml	50 ml	7/30/08	9/13/08	KS
2		Conc HNO_3	2032-44-29	3 ml				
3		Conc HCL	2032-32-6	1 ml				
4		D. H_2O		SQ				
5	High Conc Hg Solution	98% Mercury Nitrate hydrate	2184-3-11 2184-3-12 2184-2-30	121.004 g	7 L	8/5/08	—	FHF
6	For MALT TESTING	Nitric Acid	2032-44-28	800 ml			—	
7		DI H_2O	—	SQ			—	
8	ICP ICV STD.	5000 ug/ml As, Cd, Cr, Pb, 2000 ug/ml Be	2032-49-20	50 ul / 50	100 ml	8-6-08	8-6-08	JS
9		Conc HNO_3	2032-44-29	6 ml				
10		Conc HCL	2032-32-6	2 ml				
11		DI H_2O	—	SQ				
12	ICP ICV STD	Same As Lines	8 → 11	—	100 ml	8-8-08	8-8-08	JS
13	High Conc Hg Solution	98% Mercury Nitrate hydrate	2184-3-13	43.009 g	2.5 L	8-11-08	—	FHF
14	BATCH 2 For	Nitric Acid	2032-44-28	250 ml			—	
15	MALT TESTING	D. H_2O	—	SQ			—	
16	ICP ICV Std	5000 ug/ml As Cd Cr, Pb 2000 ug/ml Be	2032-49-20	50 ul	100 ml	8/13/08	8/13/08	KS
17		Conc Nitric KS 8/13/08	~~2032-49-20~~ 2032-44-29	6 ml				
18		Conc HCL KS 8/13/08	~~2032-44-28~~ 2032-36-6	2 ml				
19		D. H_2O	—	SQ				
20	ICP ICV Std	same as Lines 16 - 19	KS		8/13/08	8/13/08	8/13/08	KS
21	ICP ICV STD	Same As	Lines 16-19	—	100 ml	8-21-08	8-21-08	JS
22								
23								
24								
25								
26								
27								
28								
29								
30								

Reviewed By: Date:

Standards/Reagents Receipt

Trace Number	Material	Source	Lot#	Date Received	Exp. Date	Use	Received By
1 2184-2-1	p-Xylene	Fisher	073181	4/21/08	—	LAB	RWH
2 2184-2-2					—		
3 2184-2-3					—		
4 2184-2-4	Methanol		076559		—		
5 2184-2-5					—		
6 2184-2-6					—		
7 2184-2-7					—		
8 2184-2-8					—		
9 2184-2-9					—		
10 2184-2-10					—		
11 2184-2-11					—		
12 2184-2-12	Mineral Oil, Light	Fisher	072798	5/5/08	—	Lab	RWH
13 2184-2-13	Hexanes		080013	5/5/08	—	Lab	RWH
14 2184-2-14					—		
15 2184-2-15					—		
16 2184-2-16					—		
17 2184-2-17					—		
18 2184-2-18					—		
19 2184-2-19					—		
20 2184-2-20					—		
21 2184-2-21	PH1 Buffer	Fisher	074117	6/3/08	02/2009	LAB	RWH
22 2184-2-22	Sodium Hydroxide	Fisher	076254	6/20/08	—	LAB	
23 2184-2-23					—		
24 2184-2-24					—		
25 2184-2-25					—		
26 2184-2-26					—		
27 2184-2-27					—		
28 2184-2-28	Mercury II Nitrate	Alfa Aesar	E22S010	6/23/09	—	Mace Testing	RHF
29 2184-2-29					—		
30 2184-2-30					—		

Reviewed By: Date:

Standards/Reagents Receipt

Trace Number	Material	Source	Lot#	Date Received	Exp. Date	Use	Received By
1 2184-3-1	Hexanes	Fischer	080013	7-3-08	—	LAB	RWH
2 2184-3-2	〃	〃	〃	〃	—	〃	〃
3 2184-3-3	〃	〃	〃	〃	—	〃	〃
4 2184-3-4	〃	〃	〃	〃	—	〃	〃
5 2184-3-5	〃	〃	〃	〃	—	〃	〃
6 2184-3-6	〃	〃	〃	〃	—	〃	〃
7 2184-3-7	〃	〃	〃	〃	—	〃	〃
8 2184-3-8	〃	〃	〃	〃	—	〃	〃
9 2184-39	Hydrogen Peroxide 30%	Fisher	082548	8/4/08	—	Lab-Metals	RWH
10 2184-3-10	〃	〃	〃	〃	—	〃	〃
11 2184-3-11	Mercury II Nitrate hydrate ACS 98%	AlFa Aesar	E22S010	8/5/08	—	Melt Testing Hg Sol	FHF
12 2184-3-12	Stock # 14497	〃	〃	〃	—	Shipped Data 7/8/08	〃
13 2184-3-13	Mercury(II) Nitrate hydrate ACS 98% Stock 14497	AlFa Aesar	E22S010	8/8/08	—	Melt Testing	FHF
14 2184-3-14	Hexanes	Fisher	083197	8/19/08	—	Lab-PCB's	RWH/MT
15 2184-3-15	〃	〃	〃	〃	—	〃	〃
16 2184-3-16	〃	〃	〃	〃	—	〃	〃
17 2184-3-17	〃	〃	〃	〃	—	〃	〃
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

Reviewed By: Date:

*Fisher*brand* 50mL Graduated Polypropylene Tube

Skirt extends beyond the bottom of the tube so it can stand without support

- Freestanding with conical bottom
- Made from durable polypropylene for excellent chemical resistance
- Features molded graduations in 2.5mL increments up to 10mL, and 5mL increments from 10 to 50mL
- Sterile
- Supplied with blue plastic plug-seal caps

14-375-150

O.D. × L	Capacity	Cat. No.	Case of 500
29.5 × 113.8mm	50mL	14-375-150	188.66

LOOKING FOR RACKS?

Fisherbrand* Vinyl-Coated Wire Racks are made of heavy-gauge steel for excellent chemical resistance. For details and ordering information, see the Racks section.

Corning* 15mL Graduated Tubes

Available with leakproof ergonomic, leak-resistant caps

- With conical bottoms
- Available with your choice of clear polypropylene (PP) or polyethylene tetraphthalate (PET)
- Sterile, certified RNase-/DNase-free and nonpyrogenic
- High speed RCF rating up to 12,000×G
- CentriStar* caps provice a revolutionary plug feature, wider knurls, and roll-over edge design to improve grip; easy-on, easy-off thread design; and a flat top with matte finish for easy marking
- Original plug-seal caps also available
- Large white marking spot and black printed graduations

05-538-51

ORDERING INFORMATION:

Tubes are packaged in a bulk pack resealable zip lock (sleeve) or a convenient polyfoam rack (07-200-611, also available separately).

O.D. × L	Max. RCF	Material	Packaging	Mfr. No.	Cat. No.	Case of 500
Tubes with CentriStar Caps						
17 × 119mm	12,000×G	Clear PP	50/rack	430790	**05-538-59A**	198.72
17 × 119mm	12,000×G	Clear PP	25/sleeve	430791	**05-538-59B**	191.73
Tubes with Plug-Seal Caps						
17 × 119mm	12,000×G	Clear PP	50/rack	430052	**05-538-53D**	208.36
17 × 119mm	12,000×G	Clear PP	25/sleeve	430766	**05-538-53F**	199.10
17 × 119mm	3600×G	PET	50/rack	430055	**05-538-51**	212.38
17 × 119mm	3600×G	PET	25/sleeve	430053	**05-538-51A**	199.10

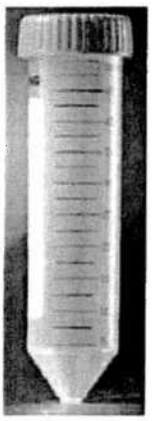
Corning* 50mL Graduated Plastic Tubes

Available with leakproof CentriStar* caps

- With conical bottoms
- Available in your choice of clear polypropylene (PP) or polyethylene tetraphthalate (PET)
- Sterile, certified RNase-/DNase-free and nonpyrogenic
- High speed RCF rating up to 15,500×G
- CentriStar caps provide a revolutionary plug feature, wider knurls, and roll-over edge design to improve grip; easy-on, easy-off thread design; and a flat top with matte finish for easy marking
- Original plug-seal caps also available
- Large white marking spot and black printed graduations

ORDERING INFORMATION:

Tubes are packaged in a bulk pack resealable zip lock (sleeve) or a convenient polyfoam rack (available separately, 07-202-531)
Universal rack for holding both 15mL and 50mL tubes is also available (07-200-610)



05-538-55

O.D. × L	Max. RCF	Material	Packaging	Mfr. No.	Cat. No.	Case of
Tubes w/CentriStar Caps						
28 × 115mm	15,500×G	PP	25/sleeve	430829	**05-538-60**	500/258.34
28 × 115mm	15,500×G	PP	25/rack	430828	**05-526B**	500/272.14
28 × 115mm	15,500×G	PP	25/rack	4558	**07-203-510†**	300/168.00
Tubes w/Plug-Seal Caps						
28 × 115mm	15,500×G†	PP	25/rack	430290	**05-538-55†**	500/282.61
28 × 115mm	15,500×G†	PP	25/sleeve	430291	**05-538-56A†**	500/268.28
30 × 114mm	3600×G	PET	25/rack	430304	**05-538-49**	500/322.55

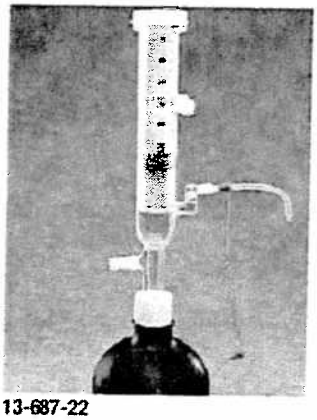
† *Thermo Scientific* IEC 8850 (05-375-79) rotor supports these tubes to 25,000×G.*

Thermo Scientific* Universal and Low-Profile Repipet* Dispensers

Handy, accurate Pyrex* glass reagent diluters

Safely handle most any reagent, including concentrated acids (except hydrofluoric) and alkalis, chlorinated hydrocarbons. Only glass and fluorocarbon resin come in contact with reagent. Repipet dispensers dispense 20 times/min.

- Lift plunger to fill, depress to deliver
- Accuracy: 1%
- Reproducibility: 0.1%



13-687-22

Universal Diluters

- Fit common screw-cap reagent bottles with openings greater than ¾" I.D. (19mm)
- Ideal for blood chemistries and biological and microbiological analyses
- Come with three sets of caps and washers to fit 28-430, 33-430, and 38-430 bottle threads (other sizes available on request)
- Features magnifying indicator, integral air filter, and 24" (61cm) of PTFE resin tubing (metal indicator for diluters available on special order)
- Without bottle

Low-Profile Diluters

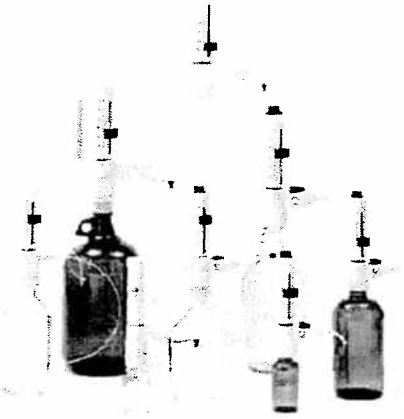
- Wide-mouth, 1000mL reservoir containers have Halar* fluorocarbon resin caps with two openings: one for dispenser, other to allow refilling (no need to remove dispenser)
- Bottle designed for solid support, less chance of breakage
- Low profile allows easy fit into shelf space and refrigerators
- Amberized glass
- PTFE resin outlet tip
- With air intake tubulation

NOTE:
PTFE resin caps may distort with autoclaving or use of strong solvents.

Volume	Grad.	Mfr. No.	Cat. No.	Each
Repipet Dispensers				
Universal				
1mL	0.01mL	3001AU	13-687-18	377.00
5mL	0.05mL	3005AU	13-687-19	387.00
10mL	0.10mL	3010AU	13-687-20	380.00
20mL	0.25mL	3020AU	13-687-21	410.00
50mL	0.50mL	3050AU	13-687-22	494.00
100mL	1.00mL	3100AU	13-687-23	617.00
Low-Profile				
1mL	0.01mL	3001AL	13-687-31	389.00
5mL	0.05mL	3005AL	13-687-33	390.00
10mL	0.10mL	3010AL	13-687-35	390.00
20mL	0.25mL	3020AL	13-687-37	406.00
50mL	0.50mL	3050AL	13-687-39	497.00

Brinkmann* Bottle-Top Dispensers

With a broad array of adapters and accessories available, dispensers are designed to fit almost any size reagent bottle for almost any application



Brinkmann fixed- and adjustable-volume bottle-top dispensers shown with reservoirs (not supplied); some with accessory extended discharge tube or drying tube.

Fixed- and adjustable-volume dispensers cover a volume range of 0.1 to 100mL. Deliver even the harshest reagents safely. Choose standard models or ChemSaver models, which recirculate the reagent used during the priming step. Accuracy ±0.5%,† precision ≤0.1%.

- Clear plastic sleeve surrounds the glass cylinder to protect the user from chemical hazards should the cylinder break
- Support sleeve surrounds the discharge tubing to restrict its movement and provide an additional safety barrier during dispensing
- Entire assembly rotates 360° to allow the user to obtain the safest dispensing position and reach the volume adjustment at all times
- Autoclavable without having to loosen valves or remove individual parts
- Easy to use and maintain
- Unique "wiping" piston seal of PTFE resin eliminates the problems of piston swelling/freezing common to conventional floating-piston dispensers
- Reagent is wiped out of the cylinder with each stroke to prevent the buildup of residue that can lead to malfunction
- Grooved, positive-lock volume adjustment ensures precision and prevents accidental setting changes during use
- Unique telescoping filling tube adjusts to fit the reagent bottle, without cutting
- Filling valve, tubing, and even the piston can be individually replaced, to minimize repairs and downtime
- ChemSaver models eliminate reagent waste through the use of a recirculating safety valve that diverts reagent used in priming back into the reservoir bottle
- ChemSaver valve can be closed to prevent unintended flow of reagent
- ChemSaver models can be user-calibrated for fine adjustment of volume when working with viscous or high-density solutions

INCLUDES:
All dispensers are supplied with a certificate of calibration to aid in GLP compliance. Standard dispensers come in fixed- as well as adjustable-volume styles. ChemSaver dispensers, in adjustable-volume style only.

Ordering Table Contd. on next page.

Pyrex* Vista* Reusable Glass Tubes with Phenolic Screw Caps

Supplied with deep-form phenolic caps to facilitate handling and sealing after autoclaving

- Blue enamel marking spot provides excellent surface for pencil notations
- Pencil marks are easily erased

ORDERING INFORMATION:
Replacement caps available.

07-250-130 Series

Capacity	O.D. × L	Mfr. No.	Cat. No.	Pack of 50	Case of 4 Pk.
9mL	13 × 100mm	70825-13	07-250-133	54.05	157.81
11mL	16 × 100mm	70825-16	07-250-134	74.45	217.37
15mL	16 × 125mm	70825-16X	07-250-135	74.45	217.37
20mL	16 × 150mm	70825-16XX	07-250-136	74.45	217.37
25mL	20 × 125mm	70825-20	07-250-137	91.05	265.83
34mL	20 × 150mm	70825-20X	07-250-138	102.75	299.99
55mL	25 × 150mm	70825-25	07-250-139	114.95	335.62

Kimax* Reusable Tube with Brown Graduations

With permanently fused brown scale

- 10mL tube is graduated every 0.1mL from 0.5 to 10mL
- Reinforced bead

10-310-200

O.D. × L	Mfr. No.	Cat. No.	Each
16 × 125mm	46350-10	10-310-200	35.63

We use 14-950-B

A 25ml Tube unable To locate quickly

Kimax* Reusable Borosilicate Glass Tubes

Feature fire-polished top rim and uniform wall thickness for maximum heat transfer and chemical resistance

- Culture tubes made from KG-33 glass

COMPLIANCE:
Designed from ASTM* specification E982, Type IV requirements

With Plain End

Without marking spot

14-925 Series

O.D. × L	Mfr. No.	Cat. No.	Pack of†
6 × 50mm	45060 650	14-925B	72/19.08
13 × 100mm	45060 13100	14-925E	72/35.14
16 × 150mm	45060 16150	14-925J	72/44.18
19 × 150mm	45060 19150	14-925K	72/44.18
25 × 150mm	45060 25150	14-925M	72/82.34
25 × 200mm	45060 25200	14-925N	24/30.12

† Also available in alternate quantity. Contact your Fisher Scientific Customer Service Representative for details. Or visit our Web site.

With Plain End and Marking Spot

With durable white ceramic marking spot on each tube

14-923 Series

O.D. × L	Mfr. No.	Cat. No.	Pack of†
10 × 75mm	45048-1075	14-923B	72/35.14
12 × 75mm	45048-1275	14-923C	72/35.14
13 × 100mm	45048-13100	14-923D	72/37.16
15 × 125mm	45048-15125	14-923F	72/44.18
16 × 100mm	45048-16100	14-923H	72/46.19
16 × 125mm	45048-16125	14-923J	72/44.18
16 × 150mm	45048-16150	14-923K	72/53.22
18 × 150mm	45048-18150	14-923L	72/59.25
20 × 150mm	45048-20150	14-923W	576/392.87
25 × 150mm	45048-25150	14-923P	72/113.47
25 × 250mm	45048-25250	14-923R	144/398.73

† Also available in alternate quantity. Contact your Fisher Scientific Customer Service Representative for details. Or visit our Web site.

Attachment 3

Rotary Kiln Incinerator Unit 4
Waste Profile and Analytical Data for Test Feeds

UNIT 4 TEST CONDITIONS
August, 2008

Chlorine – lbs/hr Hexachloroethane (6.9 lbs/bag in solids)	250 – 300
Drum Solids – lbs/hr – Zexel Lead Nitrate (2.6 lbs/bag) Mercuric Nitrate (23 ml/bag)	900 -1000 (23 – 24 lbs/charge)
Bulk Solids – Zexel + Sand	4000 - 5000
High Btu Liquids (Tank 312) – lbs/hr	300 -600
Low Btu Liquids (Direct Inject) – lbs/hr Chromic Acid (250 lbs/hr)	300 -600

Containerized Solids – Zexel Carveout Area pages 2-4
Bulk Solids – Zexel Carveout Area + sand (ash content) pages 2-4
Low Btu Liquids (DI) – PQ Corp page 5
High Btu Liquids – Bayer Crop Science, Veolia, Cambrex Charles City Blend tank 312 page 6
page 7 pages 8-9 pages 10-11

Metal Feeds (Spike + Waste Feeds)
- Mercury – 0.025 lbs/hr
- Lead – 66 lbs/hr
- Chromium – 45 lbs/hr

One Condition, Three Runs Only

(2)

Report: R7008
DATE: 07/03/08

ONYX ENVIRONMENTAL SERVICES, LLC
WASTE PROFILE SUMMARY

Version 06.04
TWI-032206
SELLING REGION LAB - MRL

BUSINESS: ZEXEL CARVEOUT AREA
DEPT.....: ..
ADDRESS 1: 2121 S IMBODEN COURT
ADDRESS 2:
CITY/ST..: DECATUR IL 62521
CONTACT..: RONALD W. ELDER

NUMBER.....: 143-8-669
PHONE.....: 314/682-1540
EXPIRES.....: 02/08/10
STATUS.....: APPR FOR SERV
FEDERAL EPA ID: ILR000150359
STATE EPA ID..: 1150155433
EPA STATUS....: CHK RESTRICT
SALES OFFICE..: TWI

WASTE NAME: SOLIDIFIED SLUDGE
PROCESS GENERATING WASTE: SITE REMEDIATION
SHIP. NAME: HAZARDOUS WASTE, SOLID, N.O.S
ADDL. DESC: (TRICHLOROETHYLENE, TETRACHLOROETHENE, CIS-1,2-DICHLOROETHEN

CHEMICAL COMPOSITION

	MIN	- MAX	UNIT DESCRIPTION
CIS-1,2-DICHLOROETHENE		110000	UG/KG
STYRENE		360000	UG/KG
TETRACHLOROETHANE		417000	UG/KG
TRICHLOROETHENE		115000	UG/KG
WATER	0	10	%
SOIL	70	80	%
NON-TRI CHEMICALS			
CORN COB ABSORBANT	0	20	%

METALS EP TOX/TCLP

Arsenic as As	<	5.0	mg/l
Cadmium as Cd	<	1.0	mg/l
Lead as Pb	<	5.0	mg/l
Mercury as Hg	<	.2	mg/l
Selenium as Se	<	1.0	mg/l
Chromium Hex			
Nickel as Ni			
Thallium as Tl			

PHYSICAL CHARACTERISTICS

Physical State...: Solid
Flash Point.....: N/A CL
pH.....: 05.0 - 09.0
Color.....: BROWN
Odor.....: NONE
Layers.....: Single Layer
Specific Gravity.: 0.000
Free Liquids.....: 0 - 10
Cyanides.....: < 5 PPM TOTAL
Sulfides.....: > 3 PPM TOTAL
PCB's.....: ppm, Regulated by 40 CFR 761:
Phenolics.....: < 10 PPM
% Taxable.....:
DOT UN/NA NBR: NA3077
Treatment Codes..: T07
CRQ RPT QTY.....:
Material Class:
EPA Permit.....:
EXP:
Hazard Class.....: 9
State Codes.....: 090001
Benzene .....:
NESHAP:
Packing Group....: III
Process Codes....: BSH
Cert of Dstrct Rq:

Federal Codes: D039 D040

HANDLING

NEO. GREY GLOVES SARANEX TYPE C RESPIR CONST FLOW

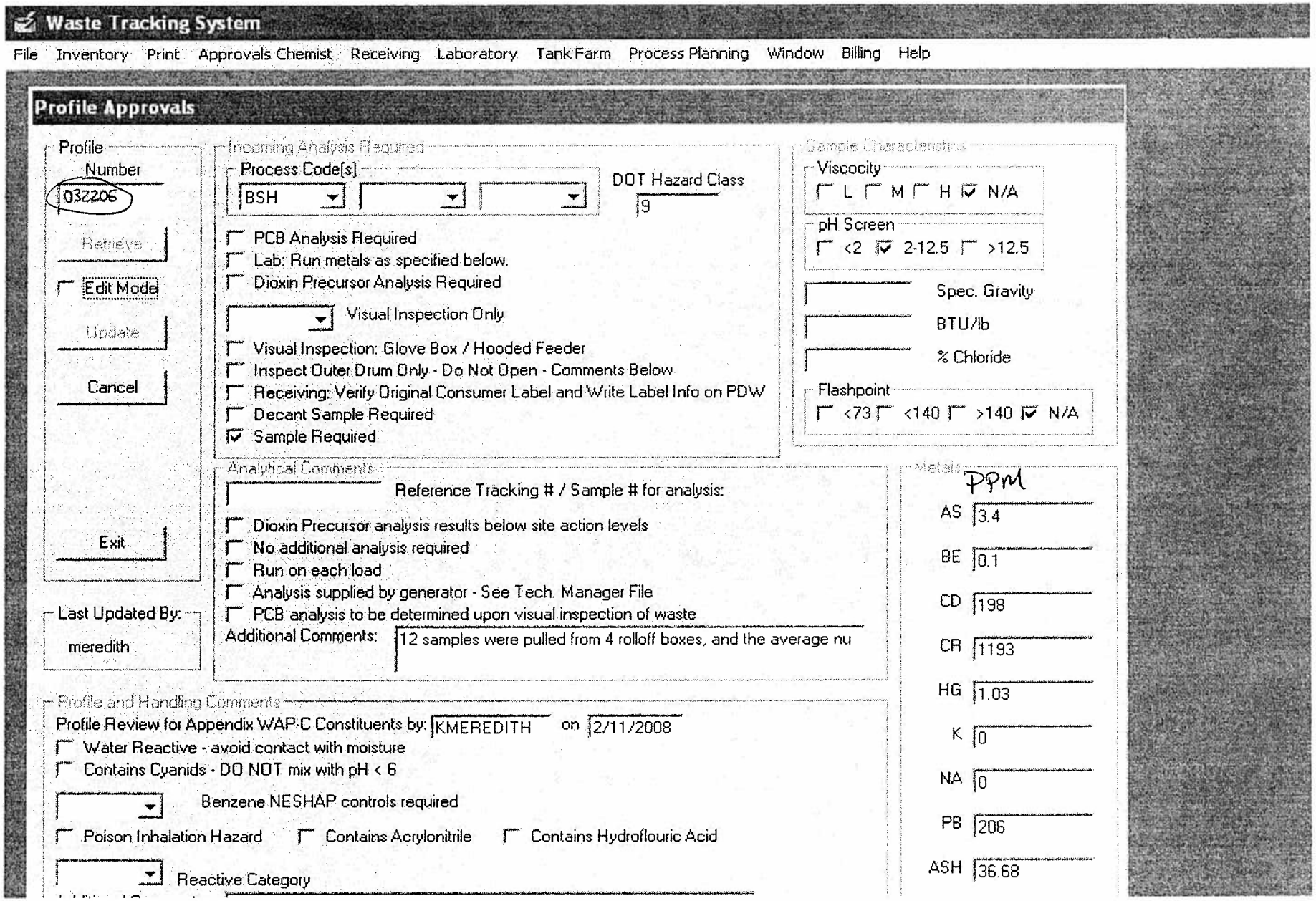
INDEX/BLUE NITRILE (INNER GLOVE)

DOT PROPERTIES

Inhalation: 2 Dermal: 2 Oral: 2 Flammable: 0 Health: 0

SUMMARY

Waste Type B519
Form Code 1


Waste Tracking System
File Inventory Print Approvals Chemist Receiving Laboratory Tank Farm Process Planning Window Billing Help
Profile Approvals
Profile
Number
032206
Retrieve
Edit Mode
Update
Cancel
Exit
Last Updated By:
meredith
Incoming Analysis Required
Process Code(s)
BSH
DOT Hazard Class
9
PCB Analysis Required
Lab: Run metals as specified below.
Dioxin Precursor Analysis Required
Visual Inspection Only
Visual Inspection: Glove Box / Hooded Feeder
Inspect Outer Drum Only - Do Not Open - Comments Below
Receiving: Verify Original Consumer Label and Write Label Info on PDW
Decant Sample Required
Sample Required
Sample Characteristics
Viscocity
L M H N/A
pH Screen
<2 2-12.5 >12.5
Spec. Gravity
BTU/lb
% Chloride
Flashpoint
<73 <140 >140 N/A
Analytical Comments
Reference Tracking # / Sample # for analysis:
Dioxin Precursor analysis results below site action levels
No additional analysis required
Run on each load
Analysis supplied by generator - See Tech. Manager File
PCB analysis to be determined upon visual inspection of waste
Additional Comments:
12 samples were pulled from 4 rolloff boxes, and the average nu
Metals
PPM
AS 3.4
BE 0.1
CD 198
CR 1193
HG 1.03
K 0
NA 0
PB 206
ASH 36.68
Profile and Handling Comments
Profile Review for Appendix WAP-C Constituents by: KMEREDITH on 2/11/2008
Water Reactive - avoid contact with moisture
Contains Cyanids - DO NOT mix with pH < 6
Benzene NESHAP controls required
Poison Inhalation Hazard
Contains Acrylonitrile
Contains Hydroflouric Acid
Reactive Category

TWI Laboratory Analysis Report

Sample Required

Receiver #: 329006
# of Drums: 1
Date: 7/17/2008
Profile #: 032206
Generator: ZEXEL CARVEOUT AREA
Descript: SOLIDIFIED SLUDGE
Process Code(s): BSH

Drum Storage Compatability

Profiled DOT Hazard Class 9

P = Pass F = Fail

8A_____ 8B_____ 4/5_____

					Profile	Conform		Date	Initials
Sample Number	284638 000231228VES					Yes	No	07/17/08	AJ
Drum Rep / Comp	BULK/0								
Free Liquid (%)	0								
Pumpable	NO								
Layers/Phases -% Ea.	100								
Color	brown - dark								
Turbidity	N/A								
Viscosity	N/A				N/A		X		
Physical State	solid								
Water Miscibility	Part Floats Sinks								
Add. Description	sludge								
Water Reactivity	No RXN								
Radiation Screen	=BKG				=BKG		X		
Flam. Pot. Screen	NEGATIVE				See Flashpoint		X		
pH Screen	6 at 10 pcnt				2-12.5		X		
Oxidizer Screen	NEGATIVE	As	3.4		Hg ~~206~~ 1.03				
Paint Filter Test	N/A	Be	0.1		K ~~<1.02~~				
Cyanide Screen	NEGATIVE CYANTESMO	Cd	198		Na 0				
Sulfide Screen	POSITIVE	Cr	1193		Pb ~~Pb~~ 0206				
Incidental Odor	No								
Specific Gravity					0.000 - 0.000			01/01/00	
BTU/Lb	2340				2000 - 10000			07/17/08	MT
% Chloride	<0.5				1 - 5			07/17/08	TD
Flash Point - Deg F					N/A			01/01/00	
PCBs By GC - mg/kg					<50ppm			07/17/08	
PCBs-Screen - ppm					<50ppm			01/01/00	
2,4,5-T/Silvex - ppm	/							01/01/00	
PCP Screen - ppm								01/01/00	
pH by Meter								01/01/00	

ASH 36.68

Additional Comments: 12 samples were pulled from 4 rolloff boxes, and the average number was used for metals.
Profile Review for Appendix WAP-C Consitituents by: KMEREDITH
Date: 2/11/2008

DATE: 08/20/08

WASTE PROFILE SUMMARY

SELLING REGION LAB - MRL

BUSINESS: PQ CORP (DI)
DEPT.....: ..
ADDRESS 1: 1700 KANSAS AVE
ADDRESS 2:
CITY/ST..: KANSAS CITY KS 66105-1198
CONTACT..:

NUMBER.....: 141-6-444
PHONE.....:
EXPIRES.....: 03/07/10
STATUS.....: APPR FOR SERV
FEDERAL EPA ID: KSD000203711
STATE EPA ID..: 9200019999
EPA STATUS....: CHK RESTRICT
SALES OFFICE..: PTA

WASTE NAME: MONOISOBUTYLAMINE & WATER MIX
PROCESS GENERATING WASTE: FLASH CONDENSATE FROM ZEOLITE MANUFACTURING
SHIP. NAME: WASTE FLAMMABLE LIQUIDS, CORROSIVE, N.O.S
ADDL. DESC: (CONTAINS MONOISOBUTYLAMINE)

CHEMICAL COMPOSITION

	MIN	- MAX	UNIT DESCRIPTION
WATER	60	70	%
NON-TRI CHEMICALS			
MONOISOBUTYLAMINE	0	40	%
TRIETHYLAMINE	0	40	%

METALS

	TCA OR TOTAL	
Nickel as Ni	2.5	ppm
Thallium as Tl	10	ppm
Barium as Ba	2.5	ppm
Cadmium as Cd	2.5	ppm
Chromium tot Cr	2.5	ppm
Lead as Pb	2.5	ppm
Silver as Ag	2.5	ppm
Antimony	2.5	ppm
Vanadium	2.5	ppm
Arsenic as As	2.0	ppm
Mercury as Hg	0.05	ppm
Beryllium	2.5	ppm
Potassium	12.5	ppm
Sodium	5.0	ppm
Selenium as Se	2.5	ppm
Zinc	2.5	ppm
Aluminum	20.0	ppm

PHYSICAL CHARACTERISTICS

Physical State...: Liquid
Flash Point.....: 100 - 140 CL
pH.....: 12.5 - 14.0
Color.....: VARIES
Odor.....: AMINE - LIKE
Layers.....: Single Layer
Specific Gravity.: 0.800 - 1.200
Free Liquids.....: 99 - 100
Cyanides.....: < 5 PPM TOTAL
Sulfides.....: < 3 PPM TOTAL
PCB's.....: N/A ppm, Regulated by 40 CFR 761:
Phenolics.....: None
% Taxable.....:
DOT UN/NA NBR: UN2924
Treatment Codes..: T07
CRQ RPT QTY.....:
Material Class:
EPA Permit.....:
EXP:
Hazard Class.....: 3
State Codes.....: 090001
Benzene .....:
NESHAP: Not Benezene NESHAP
Packing Group....: II
Process Codes....: DI1
Cert of Dstrct Rq:

Federal Codes: D001 D002

HANDLING

NEO. GREY GLOVES CPF 3 TYPE C RESPIR CONST FLOW
PVC YELLOW OVR BOOT COVER

INDEX/BLUE NITRILE (INNER GLOVES)
DI-CAUSTIC LIQUID; PH >10

DOT PROPERTIES

Inhalation: 3 Dermal: 3 Oral: 3 Flammable: 0 Health: 0

SUMMARY

Waste Type B219
Form Code 1

COMMENTS

CHARGE CODE: CORL
PE UNTIL 3-31-09
REVIEWED FOR MACT METALS
PO 100271 for 8/15/08

TWI Laboratory Analysis Report

(6)

~~Visual Inspection: Glove Box / Hooded Feeder~~

Receiver #: TK312
# of Drums: 1
Date: 6/29/2001
Profile #: ZZZZZZ
Generator: TRADE WASTE INCINERATION
Descript:
Process Code(s):

Drum Storage Compatability

Profiled DOT Hazard Class 9

P = Pass F = Fail

8A_____ 8B_____ 4/5_____

Sample Number	284634 IL00000001			Profile	Conform Yes	Conform No	Date	Initials
Drum Rep / Comp	1/							
Free Liquid (%)								
Pumpable	NO				Yes	No	07/17/08	AJ
Layers/Phases -% Ea.								
Color								
Turbidity								
Viscosity				L		X		
Physical State								
Water Miscibility								
Add. Description								
Water Reactivity								
Radiation Screen				=BKG		X		
Flam. Pot. Screen				See Flashpoint		X		
pH Screen	6 at 100 pcnt	PPM		2-12.5		X		
Oxidizer Screen		As	280	Hg	~~87~~ 1			
Paint Filter Test		Be	0.2	K	~~4~~ 0			
Cyanide Screen		Cd	2.4	Na	0			
Sulfide Screen		Cr	8.9	Pb	~~0~~ 27			
Incidental Odor								
Specific Gravity	1.06						07/17/08	AJ
BTU/Lb	4190						07/17/08	MT
% Chloride	2.8						07/17/08	TD
Flash Point - Deg F							01/01/00	
PCBs By GC - mg/kg				<50ppm			07/17/08	
PCBs-Screen - ppm				<50ppm			01/01/00	
2,4,5-T/Silvex - ppm	/						01/01/00	
PCP Screen - ppm							01/01/00	
pH by Meter							01/01/00	

Profile Review for Appendix WAP-C Consitituents by:
Date:
Add. Comments: The data in the sample information section(6/29/2001)is date profile ZZZZZZ was created.

Report: R7008
DATE: 08/18/08

ONYX ENVIRONMENTAL SERVICES, LLC
WASTE PROFILE SUMMARY

Version 06.04
TWI-388522
SELLING REGION LAB - MRL

(4)

B%SINESS: BAYER CROP SCIENCE
DEPT.....: ..
ADDRESS 1: 1740 WHITEHALL RD
ADDRESS 2:
CITY/ST..: MUSKEGAN MI 49445
CONTACT..:

NUMBER.....: 103-9-594
PHONE.....:
EXPIRES.....: 01/05/10
STATUS.....: APPR FOR SERV
FEDERAL EPA ID: MID080358351
STATE EPA ID..: 9260019999
EPA STATUS....: CHK RESTRICT
SALES OFFICE..: TWI

WASTE NAME: MOTHER LIQUOR RESIDUE
PROCESS GENERATING WASTE: PROCESS WASTE FROM MANUFACTURING OF INTERMEDIATE H IDE
SHIP. NAME: HAZARDOUS WASTE, LIQUID, N.O.S
ADDL. DESC: (METHANOL, GLUFOSINATE AMMONIUM)

CHEMICAL COMPOSITION

	MIN	- MAX	UNIT DESCRIPTION
NON-TRI CHEMICALS			
GLUFOSINATE AMMONIUM	0	30	%
AMMONIUM CHLORIDE	0	20	%
METHANOL	0	5.8	%
WATER	20	70	%
NON-TRI CHEMICALS			
OTHER RELATED COMPOUNDS	8	8	%

METALS EP TOX/TCLP

Arsenic as As	<	5.0	mg/l
Cadmium as Cd	<	1.0	mg/l
Lead as Pb	<	5.0	mg/l
Mercury as Hg	<	.2	mg/l
Selenium as Se	<	1.0	mg/l
Chromium Hex			
Nickel as Ni			
Thallium as Tl			

PHYSICAL CHARACTERISTICS

Physical State...: Liquid
Flash Point.....: 100 - 200 CL
pH.....: 04.0 - 06.0
Color.....: BROWN/VARIES
Odor.....: NONE
Layers.....: Multi Layer
Specific Gravity.: 0.950 - 1.150
Free Liquids.....: 99 - 100
Cyanides.....: < 5 PPM TOTAL
Sulfides.....: < 3 PPM TOTAL
PCB's.....: ppm, Regulated by 40 CFR 761:
Phenolics.....: < 10 PPM
% Taxable.....:
DOT UN/NA NBR: NA3082
Treatment Codes..: T07
CRQ RPT QTY.....:
Material Class:
EPA Permit.....:
EXP:
Hazard Class.....: 9
State Codes.....: 090001
Benzene .....:
NESHAP:
Packing Group....: III
Process Codes....: BLL
Cert of Dstrct Rq:

Federal Codes: F003

HANDLING

NEO. GREY GLOVES
N-DEX INNER GLOVE
SARANEX
TYPE C RESPIR CONST FLOW

DOT PROPERTIES

Inhalation: 2 Dermal: 2 Oral: 2 Flammable: 0 Health: 0

SUMMARY

Waste Type	B219
Form Code	1

Report: R7008
DATE: 08/18/08

ONYX ENVIRONMENTAL SERVICES, LLC
WASTE PROFILE SUMMARY

Version 06.04
TWI-351071
SELLING REGION LAB - MRL

(8)

BUSINESS: VEOLIA ES TECHNICAL SOLUTIONS
DEPT.....: ..ATTN SUSAN SCHNEIDER 479
ADDRESS 1: W124N9451 BOUNDARY RD
ADDRESS 2:
CITY/ST..: MENOMONEE FALLS WI 53051-1603
CONTACT..:

NUMBER.....: 139-1-232
PHONE.....:
EXPIRES.....: 09/19/09
STATUS.....: APPR FOR SERV
FEDERAL EPA ID: N/A
STATE EPA ID..: 9550019999
EPA STATUS....: CHK RESTRICT
SALES OFFICE..: DEN

WASTE NAME: BULKED LIQUID HIGH BTU >3000
PROCESS GENERATING WASTE: ACCUMULATION OF WASTE FROM SOLVENT RECOVERY PROCES
SHIP. NAME: RQ, HAZARDOUS WASTE, LIQUID, N.O.S
ADDL. DESC: (TECHNICAL DESCRIPTIONS, RQ'S VALUES ILL VARY)

CHEMICAL COMPOSITION

	MIN	- MAX	UNIT DESCRIPTION
OIL	0	60	%
NON-HALOGENATED SOLVENTS	40	60	%
ACETONE			
METHYL ETHYL KETONE			
XYLENE			
ETHANOL			
ISOPROPANOL			
GLYCOL			
TOLUENE			
HEXANE			
METHANOL			
METHYL ISOBUTYL KETONE			

Underlying Hazardous Constituents exist, Print Landban form and Underlying Hazardous Constituent form.

METALS	TCA OR TOTAL	
Arsenic as As	< 500	mg/l
Barium as Ba		
Cadmium as Cd	< 100	mg/l
Chromium tot Cr		
Lead as Pb	< 500	mg/l
Mercury as Hg	< 20	mg/l
Selenium as Se	< 100	mg/l
Silver as Ag		
Nickel as Ni	< 134	mg/l
Thallium as Tl	< 130	mg/l
Chromium Hex	< 500	mg/l

PHYSICAL CHARACTERISTICS

Physical State...: Liquid
Flash Point.....: 70 - 200 CL
pH.....: 06.0 - 12.5
Color.....: VARIES, BROWN
Odor.....: NONE
Layers.....: Single Layer
Specific Gravity.: 0.800 - 1.100
Free Liquids.....: 95 - 100
Cyanides.....: < 50 PPM TOTAL
Sulfides.....: < 3 PPM TOTAL
PCB's.....: N/A ppm, Regulated by 40 CFR 761:
Phenolics.....: < 10 PPM
% Taxable.....:
DOT UN/NA NBR: NA3082
Treatment Codes..: T07
CRQ RPT QTY.....:
Material Class:
EPA Permit.....:
EXP:
Hazard Class.....: 9
State Codes.....: 090001
Benzene .....: < 1000
NESHAP: Not Benezene NESHAP
Packing Group....: III
Process Codes....: BLH
Cert of Dstrct Rq: Y

Federal Codes: D004 D005 D006 D007 D008 D010 D011 F001 F002 F003 F005 D003 D012 D015 D018 D019 +

HANDLING

NBR GREEN GLOVES
N-DEX INNER GLOVE
FULLFACE RESPIRATOR
CPF 4
TYPE C RESPIR CONST FLOW

CANCER SUSPECT AGENTS: CADMIUM, LEAD, BENZENE, VINYL CHLORIDE, FORMALDEHYDE, ARSENIC
yellow over boot cover

DOT PROPERTIES

Inhalation: Dermal: 3 Oral: 3 Flammable: 0 Health: 0

SUMMARY

Waste Type B201
Form Code 1

ONYX ENVIRONMENTAL SERVICES, LLC
WASTE PROFILE SUMMARY ADDENDUM

(9)

CHEMICAL COMPOSITION: Additional Constituents
Not included on Waste Profile Summary Report

Chemical Composition	MIN	MAX	UNIT DESCRIPTION
ETHYL ACETATE			
HEPTANE			
BUTYL ACETATE			
GLYCOL ETHER	0	60	%
WATER	0	12	%
HALOGENATED SOLVENTS			
METHYLENE CHLORIDE			
CHLOROFORM			
CARBON TETRACHLORIDE			
1,1,1-TRICHLOROETHANE			
TRICHLOROETHYLENE			
TETRACHLOROETHYLENE			
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE			
TRICHLOROETHYLENE			
INERTS	0	5	%
DIRT, SLUDGE			
MAY ALSO INCLUDE SURFACTANS, STAINS, AND VARNISHES THAT WILL BE			
COMPATED PRIOR TO ADDITION.			
COMMENTS	1000	10000	PPM
TOTAL SODIUM AND POTASSIUM			

eport: R7008
ATE: 08/18/08

ONYX ENVIRONMENTAL SERVICES, LLC
WASTE PROFILE SUMMARY

Version 06.04
TWI-CG6944
SELLING REGION LAB - MRL

USINESS: CAMBREX CHARLES CITY INC
EPT.....: ..
DDRESS 1: 1205 11TH ST
DDRESS 2: A CAMBREX CO
ITY/ST..: CHARLES CITY IA 50616-3466
ONTACT..: JEFF ROSS

NUMBER.....: 105-1-142
PHONE.....: 641/257-1059
EXPIRES.....: 11/17/08
STATUS.....: APPR FOR SERV
FEDERAL EPA ID: IAD984591891
STATE EPA ID..: 9190019999
EPA STATUS....: CHK RESTRICT
SALES OFFICE..: TWI

ASTE NAME: PILOT PLANT SOLVENTS
PROCESS GENERATING WASTE: R & D ACTIVITY IN PHARMACEUTICAL PILOT PLANT
SHIP. NAME: WASTE FLAMMABLE LIQUIDS, N.O.S
ADDL. DESC: (METHANOL, ETHANOL)

CHEMICAL COMPOSITION	MIN	- MAX	UNIT DESCRIPTION
ISOPROPYL ACETATE	0	100	%
HEPTANE	0	100	%
TOLUENE	0	100	%
OCTANE	0	100	%
ORGANICS	50	100	%
BUTANOL			
ETHANOL			
METHANOL			
ISOPROPANOL	0	50	%
ORGANICS			
METHYL ETHYL KETONE			
ACETONE			

Underlying Hazardous Constituents exist, Print Landban form and Underlying Hazardous Constituent form.

METALS	EP TOX/TCLP	
Arsenic as As	< 5.0	mg/l
Cadmium as Cd	< 1.0	mg/l
Lead as Pb	< 5.0	mg/l
Mercury as Hg	< .2	mg/l
Selenium as Se	< 1.0	mg/l
Chromium Hex		
Nickel as Ni		
Thallium as Tl		

PHYSICAL CHARACTERISTICS

Physical State...: Liquid
Flash Point.....: < 73 CL
pH.....: 04.0 - 09.0
Color.....: CLEAR
Odor.....: ORGANIC
Layers.....: Single Layer
Specific Gravity.: 0.700 - 0.950
Free Liquids.....: 95 - 100
Cyanides.....: < 5 PPM TOTAL
Sulfides.....: < 3 PPM TOTAL
PCB's.....: ppm, Regulated by 40 CFR 761:
Phenolics.....: < 10 PPM
% Taxable.....:
DOT UN/NA NBR: UN1993
Treatment Codes..: T07
CRQ RPT QTY.....: 100
Material Class:
EXP:
EPA Permit.....:
Hazard Class.....: 3
State Codes.....: 090001
Benzene .....:
NESHAP:
Packing Group....: II
Process Codes.....: DLF BF
Cert of Dstrct Rq: Y

Federal Codes: D001 F003 F005

HANDLING

N-Dex Inner Glove	NBR GREEN GLOVES	CPF 4
TYPE C RESPIR CONST FLOW	FULLFACE RESPIRATOR	

INDEX/BLUE NITRILE (INNER GLOVE)

DOT PROPERTIES

Inhalation: 2 Dermal: 2 Oral: 2 Flammable: 0 Health: 0

SUMMARY

Waste Type	B203
Form Code	1

ONYX ENVIRONMENTAL SERVICES, LLC
WASTE PROFILE SUMMARY ADDENDUM

(11)

CHEMICAL COMPOSITION: Additional Constituents
Not included on Waste Profile Summary Report

Chemical Composition	MIN	- MAX	UNIT DESCRIPTION
METHYL ISOBUTYL KETONE	0	50	%
ORGANICS			
XYLENE	0	50	%
ORGANICS			
ETHYL ACETATE			
BUTYL ACETATE	0	100	%
PROPYL ACETATE	0	50	%
ORGANICS			
TERT-BUTYL METHYL ETHER			
ETHYL ETHER			
TETRAHYDROFURAN			
INERTS	0	2	%
ORGANIC SETTLED SOLIDS FROM SYNTHESIS OF			
INTERMEDIATE PHARMACEUTICAL PRODUCTS	0	100	%
ACETONITRILE			

Report: R7008 | ONYX ENVIRONMENTAL SERVICES, LLC | Version 06.04
DATE: 07/16/08 | WASTE PROFILE SUMMARY | TWI-346595
SELLING REGION LAB - MRL

BUSINESS: TORAY CARBON FIBERS AMERICA
DEPT.....: ..
ADDRESS 1: 2030 HIGHWAY 20 WEST
ADDRESS 2:
CITY/ST..: DECATUR AL 35601
CONTACT..: JOHN CONLON

NUMBER.....: 143-5-585
PHONE.....: 256/260-1010
EXPIRES.....: 12/29/09
STATUS.....: APPR FOR SERV
FEDERAL EPA ID: ALR000036822
STATE EPA ID..: 9010019999
EPA STATUS....: CHK RESTRICT
SALES OFFICE..: TWI

WASTE NAME: ACRYLONITRILE
PROCESS GENERATING WASTE: SPINNING
SHIP. NAME: RQ, WASTE ACRYLONITRILE, STABILIZED
ADDL. DESC:

CHEMICAL COMPOSITION

	MIN	- MAX	UNIT DESCRIPTION
WATER	0	3	%
ACRYLONITRILE		97	%
CUPFERRON	0	1	%

METALS EP TOX/TCLP

Arsenic as As	<	5.0	mg/l
Cadmium as Cd	<	1.0	mg/l
Lead as Pb	<	5.0	mg/l
Mercury as Hg	<	.2	mg/l
Selenium as Se	<	1.0	mg/l
Chromium Hex			
Nickel as Ni			
Thallium as Tl			

PHYSICAL CHARACTERISTICS

Physical State...: Liquid
Flash Point.....: < 73 CL
pH.....: 05.0 - 09.0
Color.....: CLEAR, COLORLESS
Odor.....: MILD PUNGENT
Layers.....: Single Layer
Specific Gravity.: 0.750 - 0.950
Free Liquids.....: 95 - 100
Cyanides.....: < 5 PPM TOTAL
Sulfides.....: < 3 PPM TOTAL
PCB's.....: ppm, Regulated by 40 CFR 761:
Phenolics.....: < 10 PPM
% Taxable.....: DOT UN/NA NBR: UN1093
Treatment Codes..: T07
CRQ RPT QTY.....: 100 Material Class:
EPA Permit.....: EXP:
Hazard Class.....: 3
State Codes.....: 090001
Benzene .....: NESHAP:
Packing Group....: I
Process Codes....: DI1
Cert of Dstrct Rq:

Federal Codes: D001

HANDLING

BUTYL RUBBER GLOVE	N-DEX INNER GLOVE	SARANEX
NOMEX	TYPE C RESPIR CONST FLOW	PVC YELLOW OVR BOOT COVER

REACTIVE CATEGORY: B--RMP
DI - ACRYLONITRILE, POLYMERIZABLE MATERIAL
CANCER SUSPECT AGENT: ACRYLONITRILE

DOT PROPERTIES

Inhalation: 3 Dermal: 3 Oral: 3 Flammable: 0 Health: 0

SUMMARY

Waste Type	B210
Form Code	1

COMMENTS

REVIEWED FOR MACT METALS
RMP CHEMICAL: 20,000 LB THRESHOLD LIMIT
COMMITTED TO SPLIT LOAD UPON ARRIVAL
NEED WEIGHT
INVOICE TO ATTN: MIKE CONLON
REACTIVE CATEGORY: B--RMP CHEMICAL
DO NOT SCHEDULE MORE THAN 20,000/SHIPMENT
KAPPLER'S CHEM TAPE 2
PE UNTIL 2-7-09

VEOLIA

FAX TO : Tom Ramaly

COMPANY : USEPA

PHONE : _____

FAX : 312-353-4788

DATE: 8/15/08

PAGES ATTACHED INCLUDING COVER PAGE: _____

( ) CONFIDENTIAL ( ) FOR YOUR REVIEW (✓) REQUESTED INFORMATION

FROM: Dennis J. Warchol, EHS Mgr.

Veolia ES Technical Solutions, L.L.C.
7 Mobile Ave
Sauget, Illinois 62201-1069
618 271 2804 x 231
Dennis.Warchol@veoliaes.com

TWI Laboratory Analysis Report

Visual Inspection: Glove Box / Hooded Feeder

Receiver #: TK002
# of Drums: 1
Date: 6/29/2001
Profile #: ZZZZZZ
Generator: TRADE WASTE INCINERATION
Descript:
Process Code(s):

Drum Storage Compatability
Profiled DOT Hazard Class 9
P = Pass F = Fail
8A____ 8B____ 4/5____

Sample Number	285174	IL00000001
Drum Rep / Comp	1/	
Free Liquid (%)		
Pumpable	NO	
Layers/Phases -% Ea.		
Color		
Turbidity		
Viscosity		
Physical State		
Water Miscibility		
Add. Description		
Water Reactivity		
Radiation Screen		
Flam. Pot. Screen		
pH Screen	6 at 100 pcnt	
Oxidizer Screen		
Paint Filter Test		
Cyanide Screen		
Sulfide Screen		
Incidental Odor		
Specific Gravity	1.10	
BTU/Lb	2430	
% Chloride	2.5	
Flash Point - Deg F		
PCBs By GC - mg/kg		
PCBs-Screen - ppm		
2,4,5-T/Silvex - ppm	/	
PCP Screen - ppm		
pH by Meter		

285174

As	240	Hg	65
Be	0.20	K	0.02
Cd	9.3	Na	0
Cr	14	Pb	0

Ash 2.218

Profile	Conform Yes	Conform No	Date	Initials
			08/01/08	AJ
L		X		
=BKG		X		
See Flashpoint		X		
2-12.5		X		
			08/01/08	AJ
			08/01/08	MT
			08/01/08	JF
			01/01/00	
<50ppm			08/01/08	
<50ppm			01/01/00	
			01/01/00	
			01/01/00	
			01/01/00	

Profile Review for Appendix WAP-C Constituents by:
Date:
Add. Comments: blend analysis

THE DATE 6/29/2001 IS THE DATE THAT PROFILE ZZZZZZ WAS CREATED. PROFILE ZZZZZZ WAS CREATED TO ALLOW US TO ENTER DATA IN THE SYSTEM. ALL TANIC BLENDS AND PIT

TWI Laboratory Analysis Report

Receiver #: 329352
# of Drums: 1
Date: 7/23/2008
Profile #: 857617
Generator: PQ CORP
Descript: MONOISOBUTYLAMINE & WATER MIX
Process Code(s): DI1

Sample Required

Drum Storage Compatability

Profiled DOT Hazard Class 8

P = Pass F = Fail

8A_____ 8B_____ 4/5_____

Sample Number	284849 001393194FLE			Profile	Conform	Date	Initials
Drum Rep / Comp	BULK/1				Yes No	07/24/08	AJ
Free Liquid (%)	100						
Pumpable	YES						
Layers/Phases -% Ea.	100						
Color	yellow						
Turbidity	translucent						
Viscosity	low			L	✓		
Physical State	liquid						
Water Miscibility	Misc						
Add. Description							
Water Reactivity	No RXN						
Radiation Screen	=BKG			=BKG	✓		
Flam. Pot. Screen	POSITIVE			See Flashpoint	✓		
pH Screen	>12.5 at 100 pcnt			>12.5	✓		
Oxidizer Screen	NEGATIVE	As	2	Pb 2.5			
Paint Filter Test	N/A	Be	2.5	Hg 0.05			
Cyanide Screen	NEGATIVE	Cd	2.5	Na ~~12.5~~ 5			
Sulfide Screen	NEGATIVE	Cr	2.5	K ~~5~~ 12.5			
Incidental Odor	No						
Specific Gravity	0.98			0.800 - 1.200		07/24/08	AJ
BTU/Lb	740			1 - 5000		07/24/08	MT
% Chloride	<0.5			1 - 5		07/24/08	RWH
Flash Point - Deg F				<73 <140		01/01/00	
PCBs By GC - mg/kg				<50ppm		07/24/08	
PCBs-Screen - ppm				<50ppm		01/01/00	
2,4,5-T/Silvex - ppm	/					01/01/00	
PCP Screen - ppm						01/01/00	
pH by Meter	100 pcnt 12.26					07/24/08	AJ

284849

Profile Review for Appendix WAP-C Consitituents by: KMEREDITH
Date: 3/10/2008
Add. Comments: DI-CAUSTIC LIQUID; PH >10

Attachment 4

Rotary Kiln Incinerator Unit 4
Solid Feed Charges Log – August 20, 2008

SOLID FEED CHARGES - Target Rate: 40 charges/hour

Date 8/20/08

Incinerator No. 4 Test Run 1 Operator Wylde, Ed Lasich

ID # - CHARGE #	LEAD #	HEX #	MERCURY #	ID # - CHARGE #	LEAD #	HEX #	MERCURY #
20080801-1066	508	931	737	20080801-1039	981	847	701
1054	509	936	765	2 1034	914	848	721
1062	502	934	724	1030	988	843	732 < SAMPLE
1058	507	935	764	1026	991	840	710
1057	503	939	736	1025	995	845	743
1052	501	937	730	1029	974	844	733
1056	513	933	731	1033	1000	846	702
1050	505	863	738	1028	998	839	745
1053	514	865	707	1024	999	842	725
1049	510	864	726	1032	952	838	708
1048	522	861	709	1023	962	835	703
1055	504	860	744	1031	986	836	706
START > 3:35 1051	512	866	723	1027	959	841	734
1047	523	858	728	1021	982	833	716
1046	506	857	705	1022	983	834	746
1042	520	855	712	1020	979	837	720
1035	528	859	739	1013	992	832	767
1036	516	862	711	1018	994	830	741
1045	521	856	704	1019	961	831	718
1041	524	852	714	1017	990	812	719
1037	976	850	715	1012	987	829	722
1044	912	849	740	1016	986	813	717
1040	977	854	742	1015	964	826	729
1043	997	853	763	1011	975	828	866
1038	984	851	727	1014	968	823	855

13

* 735 - [illegible]

SOLID FEED CHARGES - Target Rate: 40 charges/hour

Date 8/20/08

Incinerator No. 4 Test Run 1 Operator Miller, Ed Lasich

ID # - CHARGE #	LEAD #	HEX #	MERCURY #	ID # - CHARGE #	LEAD #	HEX #	MERCURY #
20080801-1001	989	827	850	20080801-983	956	1032	873
1004	973	820	880	980	951	1030	849
40 → 1007	989	819	853	975	944	1027	865
1010	996	824	879	985	946	1033	881
1009	932	822	867	982	967	1031	875
1000	921	825	852	979	947	1025	863
1006	923	821	871	974	948	1020	841
1003	950	1050	848	981	933	1029	884
1008	934	1048	844	984	978	1026	862
1005	993	1049	859	973	945	1024	870
1002	971	1046	858	976	941	1014	883
999	960	1044	874	963	917	1023	869
998	957	1047	845	972	938	1021	872
995	970	1042	857	969	924	1022	878
992	963	1043	838	966	920	1017	886
SAMP > 989	955	1039	86→876	965	919	1018	882
997	954	1041	842	968	935	1015	861
994	980	1045	840	971	943	1012	860
991	958	1040	847	962	940	1004	856
988	927	1038	868	961	931	1016	854
996	969	1037	864	964	929	1009	794
993	972	1036	851	967→967	930	1013	817 819 <SAMP**
990	942	1028	877	~~970~~	~~937~~	~~1007~~	~~797~~
987	985	1035	846				
986	953	1034	885				

17

**819 - Merc

*842 - Merc

Attachment 5

Rotary Kiln Incinerator Unit 4
Solid Feed Charges Log – August 21, 2008

SOLID FEED CHARGES - Target Rate: 40 charges/hour

Date 8/21/08

Incinerator No. 4 Test Run 2 Operator Mueller Ed Lasch

ID # - CHARGE #	LEAD #	HEX #	MERCURY #	ID # - CHARGE #	LEAD #	HEX #	MERCURY #
20080801-970	909	1007	797	20080801-927	1111	1097	807
960	907	1010	830	936	1116	1095	823
957	911	1011	816	933	1162	1088	809
954	905	1019	828	930	1109	1093	805
951	901	1003	833	935	1114	1090	806
959	915	1008	827	932	1171	1087	802
956	910	1006	811	929	1163	1083	801
953	908	999	836	926	1157	1092	798
950	936	1001	834	934	1164	1086	800
958	903	1000	839	925	1106	1091	818
955	909	1005	831	928	1177	1089	820
949	913	1002	835	931	1159	1085	796
952	916	997	815	924	1117	1082	795
948	922	995	810	921	1191	1084	804
945	926	998	812	918	1166	1080	803
942	949	992	799	915	1161	1073	813
939	928	993	837	923	1113	1081	962
947	902	991	832	920	1195	1079	963
944	906	996	814	917	1178	1074	966
941	965	994	825	914	1176	1077	959
938	925	1099	826	922	1115	1069	964
946	918	1100	829	919	1175	1075	950
943	937	1094	822	913	~~1076~~ 1174	1076	955
940	1105	1098	808	916	1173	1072	967
937	1112	1096	821	912	1110	1078	968

START > 25

SAMP*

18

* 824 - Merc

SOLID FEED CHARGES - Target Rate: 40 charges/hour

Date 8/21/08

Incinerator No. 4 Test Run 2 Operator [illegible], EQ Jasch

ID # - CHARGE #	LEAD #	HEX #	MERCURY #	ID # - CHARGE #	LEAD #	HEX #	MERCURY #
20080801-909	1167	1070	969	20080801-1121	1190	1446	952
906	1172	1071	970	1122	1118	1444	953
START> 903	1160	1066	944	1123	1189	1442	954
2:37 > 901	1107	1068	960	1124	1186	1441	948
905	1169	1065	961	1125	1150	1438	930
908	1170	1061	958	1126	1197	1443	928
911	1180	1067	956	1128	1184	1437	923
SAMP* 910	1147	1063	934~~965~~	1127	1179	1439	924
907	1183	1064	947	1129	1158	1435	914
904	1141	1062	945	1130	1194	1436	911
902	1198	1059	940	1110	1193	1428	913
1131	1149	1060	936	1107	1151	1433	893
1132	1153	1058	935	1108	1152	1425	922
1133	1168	1055	957	1111	1196	1431	905
1134	1188	1054	946	1112	1155	1432	897
1135	1187	1057	933	1113	1124	1434	912
1136	1156	1051	938	1109	1138	1440	931~~907~~ <SAMP** 15:37
1137	1121	1053	949				
1138	1135	1056	941				
1142	1165	1052	942				
1141	1185	1450	939				
1140	1130	1448	943				
1139	1145	1445	932				
1119	1182	1449	937				
1120	1181	1447	951				

22

Mec-904*

Mec-965*

Attachment 6

TWI Instrument Calibration Records
Carbon Injection System

TWI INSTRUMENT CALIBRATION RECORD
UNIT #4
QUARTERLY

TAG:	483		
LOOP:	C-17		
DESCRIPON:	INJECTOR	MANUFACT:	K-TRON
SERVICE:	CARBON INJECTION	MODEL:	K2V-T35
LOCATION:	FLD	SCALE:	
LP-SHT:		CALIB-IN:	
P&ID:		CALIB-OUT:	
REMARKS:		PROCESS-SP:	
INSTL-RMKS:		INST-SP:	
SPEC-RMKS:		ACTION:	
S/N:		I/O NUMBER:	F26:127

CALIBRATION NOTES

Set control system set point to an appropriate flow rate. Flow Carbon into a container for one minutes, and compare the measured weight of the container, minus it's empty weight, multiplied by 60, to get the actual flow rate.

Divide measured weight by indicated weight, to get a percent of error. To correct an error multiply this number by the number in Main PLC, F26:127 and enter new number.

CALIBRATION REPORT

INPUT VALUE	INSTRUMENT READING
Before Calibration	
0	0
6 lbs/hr	~~.086~~ .096 min
After Calibration	

CALIBRATION SOURCE REFERENCE

Starting value of F26:127 _____

Corrected Value of F26:127 _____

Comments: No Calibration Needed.

Performed by: D.W Date: 8-8-07 Time: 1:00 AM (PM)

JB
CALSHEET.WDB

Place: (Field or Shop)

TWI INSTRUMENT CALIBRATION RECORD
UNIT #4
QUARTERLY

TAG: 483
LOOP: C-17
DESCRIPON: INJECTOR
SERVICE: CARBON INJECTION
LOCATION: FLD
LP-SHT:
P&ID:
REMARKS:
INSTL-RMKS:
SPEC-RMKS:
S/N:

MANUFACT: K-TRON
MODEL: K2V-T35
SCALE:
CALIB-IN:
CALIB-OUT:
PROCESS-SP:
INST-SP:
ACTION:
I/O NUMBER: F26:127

CALIBRATION NOTES

Set control system set point to an appropriate flow rate. Flow Carbon into a container for one minutes, and compare the measured weight of the container, minus it's empty weight, multiplied by 60, to get the actual flow rate.

Divide measured weight by indicated weight, to get a percent of error. To correct an error multiply this number by the number in Main PLC, F26:127 and enter new number.

CALIBRATION REPORT

INPUT VALUE		INSTRUMENT READING
Set at 6 lbs. per hr. Sor 1 minute	Before Calibration	.1 lbs.
—	After Calibration	

CALIBRATION SOURCE REFERENCE

Starting value of F26:127 _____

Corrected Value of F26:127 _____

Comments: No Calibration needed.

Performed by: B. T. B. Date: 11-12-07 Time: 2:15 AM (PM)

JB
CALSHEET.WDB

Place: _____ (Field or Shop)

TWI INSTRUMENT CALIBRATION RECORD
UNIT #4
QUARTERLY

TAG: 483
LOOP: C-17
DESCRIPON: INJECTOR
SERVICE: CARBON INJECTION
LOCATION: FLD
LP-SHT:
P&ID:
REMARKS:
INSTL-RMKS:
SPEC-RMKS:
S/N:

MANUFACT: K-TRON
MODEL: K2V-T35
SCALE:
CALIB-IN:
CALIB-OUT:
PROCESS-SP:
INST-SP:
ACTION:
I/O NUMBER: F26:127

CALIBRATION NOTES

Set control system set point to an appropriate flow rate. Flow Carbon into a container for one minutes, and compare the measured weight of the container, minus it's empty weight, multiplied by 60, to get the actual flow rate.

Divide measured weight by indicated weight, to get a percent of error. To correct an error multiply this number by the number in Main PLC, F26:127 and enter new number.

CALIBRATION REPORT

INPUT VALUE		INSTRUMENT READING
	Before Calibration	
6 lbs. per hr. for 1 minute		.095 lbs
	After Calibration	

CALIBRATION SOURCE REFERENCE

Starting value of F26:127 _____

Corrected Value of F26:127 _____

Comments: No calibration needed.

Performed by: BB/CE Date: 2-13-08 Time: 2:45 AM PM

JB
CALSHEET.WDB

Place: (Field) or Shop)

TWI INSTRUMENT CALIBRATION RECORD
UNIT #4
QUARTERLY

TAG: 483
LOOP: C-17
DESCRIPON: INJECTOR
SERVICE: CARBON INJECTION
LOCATION: FLD
LP-SHT:
P&ID:
REMARKS:
INSTL-RMKS:
SPEC-RMKS:
S/N:

MANUFACT: K-TRON
MODEL: K2V-T35
SCALE:
CALIB-IN:
CALIB-OUT:
PROCESS-SP:
INST-SP:
ACTION:
I/O NUMBER: F26:127

CALIBRATION NOTES

Set control system set point to an appropriate flow rate. Flow Carbon into a container for one minutes, and compare the measured weight of the container, minus it's empty weight, multiplied by 60, to get the actual flow rate.

Divide measured weight by indicated weight, to get a percent of error. To correct an error multiply this number by the number in Main PLC, F26:127 and enter new number.

CALIBRATION REPORT

INPUT VALUE	INSTRUMENT READING
Before Calibration	
6 lbs. per hr. for 1 minute	.096 lbs.
After Calibration	

CALIBRATION SOURCE REFERENCE

Starting value of F26:127 _____

Corrected Value of F26:127 _____

Comments: No calibration needed.

Performed by: BB/DO Date: 5-15-08 Time: 12:45 AM (PM)

Place: (Field) or Shop)

JB
CALSHEET.WDB

Attachment 7

Chain of Custody Record

1 page Ex. 5 deliberative atty-client, WP, Ex. 7(a)

Attachment 8

Certificate of Analysis – Glassware

Scientific Products LLC
Where clean is critical
36 East B.J. Tunnell Blvd.
Miami OK. 74354

Certificate of Analysis

BOTTLE TYPE GLASS **QA LEVEL** 1 **LOT NO** 027852

DESCRIPTION 131-08C; 250ml. Short Clear Wide Mouth Jar

EP Scientific Products Level 1 products have been tested and found to comply with or to be lower than the EPA detection limits as stated in OSWER Directive # 9240.0-05A, "Specifications And Guidance For Contaminant-Free Sample Containers 12/92". EP Scientific Products pass/fail criteria considers all significant non-target compounds.

Glass and HDPE Sample containers for use in the analysis of Metals

Analyte	Detection Limit (µg/L)	Analyte	Detection Limit (µg/L)	Analyte	Detection Limit (µg/L)	Analyte	Detection Limit (µg /L)
Aluminum	<80	Calcium (all HDPE)	<100	Magnesium	<100	Selenium	<2
Antimony	<5	Chromium	<10	Manganese	<10	Silver	<5
Arsenic	<2	Cobalt	<10	Mercury	<0.2	Sodium	<5000
Barium	<20	Copper	<10	Nickel	<20	Sodium (all HDPE)	<100
Beryllium	<0.5	Iron	<50	Potassium	<750	Thallium	<5
Cadmium	<1	Lead	<2	Potassium (all HDPE)	<100	Vanadium	<10
Calcium	<500					Zinc	<10

In addition to the above analytes, NALGENE® containers are certified for these analytes:

Analyte	Detection Limit (µg/L)	Analyte	Detection Limit (µg/L)	Analyte	Detection Limit (µg/L)	Analyte	Detection Limit (µg/L)
Chloride	<100	Fluoride	<20	Nitrite	<50	Sulfate	<100
Cyanide	<10	Nitrate	<20	Paraquat (amber only)	<0.4	Sulfide	<30
Diquat (amber only)	<1.0					Sulfite	<1000

Glass Sample Containers for use in the analysis of Semivolatiles and Pesticides/PCBs

Compound	Quantitation Limit (µg/L)	Compound	Quantitation Limit (µg/L)	Compound	Quantitation Limit (µg/L)
Acenaphthene	<5	Acenaphthylene	<5	Anthracene	<5
Benzo(a)anthracene	<5	Benzo(a)pyrene	<5	Benzo(b)fluoranthene	<5
Benzo(k)Fluoranthene	<5	Benzo(g,h,i)perylene	<5	Benzoic Acid	<20
Benzyl Alcohol	<5	4-Bromophenyl-phenylether	<5	Butylbenzylphthalate	<5
4-Chloroaniline	<5	4-Chloro-3-methylphenol	<5	bis-(2-Chloroethoxy)methane	<5
bis-(2-Chloroethyl)ether	<5	bis-(2-Chloroisopropyl)ether	<5	2-Chloronaphthalene	<5
2-Chlorophenol	<5	4-Chlorophenyl-phenylether	<5	Chrysene	<5
Di-n-butylphthalate	<5	Di-n-octylphthalate	<5	Dibenzo(a,h)anthracene	<5
Dibenzofuran	<5	1,2-Dichlorobenzene	<5	1,4-Dichlorobenzene	<5
1,3-Dichlorobenzene	<5	3,3'-Dichlorobenzidine	<5	2,4-Dichlorophenol	<5
Diethylphthalate	<5	Dimethylphthalate	<5	2,4-Dinitrotoluene	<5
4,6-Dinitro-2-methylphenol	<20	2,4-Dinitrophenol	<20	Fluoranthene	<5
2,6-Dinitrotoluene	<5	bis-(2-Ethylhexyl)phthalate	<5	Hexachlorobutadiene	<5
Fluorene	<5	Hexachlorobenzene	<5	Indeno(1,2,3-cd)pyrene	<5
Hexachlorocyclopentadiene	<5	Hexachloroethane	<5	2-Methylphenol	<5
Isophorone	<5	2-Methylnaphthalene	<5	3-Nitroaniline	<20
4-Methylphenol	<5	2-Nitroaniline	<20	N-Nitrosodimethylamine	<5
4-Nitroaniline	<20	N-Nitroso-di-n-propylamine	<5	Nitrobenzene	<5
N-Nitrosodiphenylamine	<5	Naphthlene	<5	Pentachlorophenol	<20
2-Nitrophenol	<5	4-Nitrophenol	<20	Pyrene	<5
Phenanthrene	<5	Phenol	<5	2,4,6-Trichlorophenol	<5
1,2,4-Trichlorobenzene	<5	2,4,5-Trichlorophenol	<20	Aldrin	<0.01
Azobenzene	<5	Carbazole	<5	Alpha-BHC	<0.01
4,4-DDD	<0.02	Endosulfan II	<0.02	Beta-BHC	<0.01
4,4-DDE	<0.02	Endosulfan Sulfate	<0.02	Delta-BHC	<0.01
4,4-DDT	<0.02	Endrin	<0.02	Gamma-BHC	<0.01
Dieldrin	<0.02	Endrin Aldehyde	<0.02	Heptachlor Epoxide	<0.01
Endosulfan I	<0.01	Heptachlor	<0.01	Alpha-Chlordane	<0.01
Methoxychlor	<0.10	Endrin Ketone	<0.02	Aroclor-1016	<0.20
Gamma-Chlordane	<0.01	Toxaphene	<0.30	Aroclor-1242	<0.20
Aroclor-1221	<0.20	Aroclor-1232	<0.20	Aroclor-1260	<0.20
Aroclor-1248	<0.20	Aroclor-1254	<0.20		
Aroclor-1262	<0.20	Aroclor-1268	<0.20		

Glass Sample Containers for use in the analysis of Volatiles

Compound	Quantitation Limit (µg/L)	Compound	Quantitation Limit (µg/L)	Compound	Quantitation Limit (µg/L)
Acetone	<5	1,3-Dichloropropane	<1	Benzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1	1,2-Dichloropropane	<1
Bromodichloromethane	<1	trans-1,3-Dichloropropene	<1	Bromoform	<1
cis-1,3-Dichloropropene	<1	Bromomethane	<1	1,1-Dichloropropene	<1
2-Butanone	<5	Ethylbenzene	<1	tert-Butylbenzene	<1
Hexachlorobutadiene	<1	sec-Butylbenzene	<1	2-Hexanone	<5
n-Butylbenzene	<1	Isopropylbenzene	<1	Carbon Disulfide	<1
p-Isopropyltoluene	<1	Carbon Tetrachloride	<1	4-Methyl-2-pentanone	<5
Chloromethane	<1	Methylene Chloride	<2	Chloroethane	<1
1,1,2,2-Tetrachloroethane	<1	Chloroform	<1	n-Propylbenzene	<1
Dibromochloromethane	<1	Styrene	<1	2 & 4 Chlorotoluene	<1
1,2,3-Trichloropropane	<1	1,2-Dibromo-3-	<1	Tetrachloroethene	<1
1,4-Dichlorobenzene	<1	chloropropane	<1	1,2-Dibromoethane (EDB)	<1
1,1,1-Trichloroethane	<1	Toluene	<1	1,2,4-Trichlorobenzene	<1
Dichlorodifluoromethane	<1	Dibromomethane	<1	1,3-Dichlorobenzene	<1
1,2,3-Trichloropropane	<1	1,1,2-Trichloroethane	<1	Trichloroethene	<1
trans-1,2-Dichloroethene	<1	1,2-Dichlorobenzene	<1	1,2-Dichloroethene	<1
Vinyl Acetate	<5	Trichlorofluoromethane	<1	Bromochloromethane	<1
Xylenes (total)	<1	1,1-Dichloroethane	<1		
Vinyl Chloride	<1	1,3,5-Trimethylbenzene	<1		
		1,1-Dichloroethene	<1		
		1,2,4-Trimethylbenzene	<1		
		cis-1,2-Dichloroethene			

In addition to the above analytes , 40 mL and 60 mL vials are certified for:

Compound	Quantitation Limit (µg/L)
Total Organic Carbon	<600

If EP Scientific Products can be of any further assistance, please call 800-331-7425 and ask for our Technical Service Department.
Approved By: James L. Riner - Quality Assurance

James L. Riner